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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,296	07/18/2000	James Digby Yarlet Collier	1417-180A	8029

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EXAMINER

NGUYEN, DAVID Q

ART UNIT

PAPER NUMBER

2682

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,296

Applicant(s)

COLLIER ET AL.

Examiner

David Q Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 20-38 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19 drawn to an oscillatory circuit having a plurality of trimming capacitances being connectable in parallel with the variable capacitance unit, classified in class 455, subclass 38.3.
 - II. Claims 20-38 drawn to an oscillatory circuit having a plurality of trimming capacitances being connectable in series with the variable capacitance unit, classified in class 455, subclass 193.3.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as improving the quality of service for a transmission of loss sensitive data. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mrs. Vincent M. Deluca (Reg. No. 32,408) on October 04, 2002 a provisional election was made with traverse to prosecute the invention of group I, claims

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1-19. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 20-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention

Drawings

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “a plurality of trimming capacitance unit each being connectable in parallel with the variable capacitance unit between the first node and second node” as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

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122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Endo et al. (US Patent Number 6172576).

Regarding claim 1, Endo show a variable frequency oscillator comprising an oscillatory circuit for generating a periodic output dependant on the capacitance between a first node and a second node of the circuit, and having a capacitative element connected between the first node and the second node, the capacitative element comprising: a variable capacitance unit, the capacitance of which is variable for varying the frequency of the output; a plurality of trimming capacitances each being selectively connectable in parallel with the variable capacitance unit between the first node and the second node to trim the frequency of the output (see fig. 8)

Regarding claim 2, Endo also show a variable frequency oscillator disclose the trimming capacitances are each selectively connectable between the first node and the second node (see fig. 8).

Regarding claim 3, Endo also show the trimming capacitances are each selectively connectable in parallel with each other (see fig. 8).

Regarding claim 4, Endo also show a switch is connected in series with each trimming capacitance between the first node and the second node for selectively connecting the respective trimming capacitance between the first node and the second node in response to a respective switching signal (see fig. 8).

Regarding claim 5, Endo also show each switch is a switching transistor (see col. 11, lines 26-28; fig. 4 and fig. 8)

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Regarding claim 6, Endo also show a variable oscillator as claimed comprising control apparatus for causing a set of the trimming capacitances to be connected between the first node and the second node (see fig. 2).

Regarding claim 7, Endo also show the control apparatus is capable of generating the said switching signal (see col. 14, lines 39-50; fig. 2).

Regarding claim 8, Endo also show the variable oscillator comprising a memory coupled to the control apparatus for storing information defining one or more sets of the trimming capacitances (see fig. 2).

Regarding claims 9-10, Endo also show wherein each of the said one or more sets corresponds to a respective operating frequency of the oscillator; and wherein the control apparatus is capable of retrieving from the memory information defining a set of the trimming capacitances and causing that set of the trimming capacitances and causing that set of the trimming capacitances to be connected between the first node and the second node (see col. 14, lines 39-55; fig. 2)

Regarding claim 11, Endo also show a variable oscillator as claimed comprising at least one of the trimming capacitances has a different capacitance value from another of the trimming capacitances (see col. 21, lines 37-53).

Regarding claim 12, Endo also show the capacitance of the variable capacitance unit is variable by mean of the voltage applied to a variable capacitance input (see col. 21, lines 37-53).

Regarding claims 13 and 14, Endo also show a variable oscillator as claimed comprising feedback apparatus connected between the output and the variable capacitance input for

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establishing the oscillator, and the feedback apparatus is a phase-locked loop (see fig. 2 and abstract).

Regarding claim 15, Endo also show shows the variable capacitance unit is a variable capacitance diode (see page 30, lines 41-45; fig. 8).

Regarding claim 16, Endo also show a radio terminal comprising a variable oscillator (see abstract).

Regarding claim 17, Endo also show a method for operating a variable frequency oscillator, the method comprising retrieving from the memory information defining a set of the trimming capacitances; connecting that set of the trimming capacitances between the first node and the second node; comparing the voltage at the variable capacitance input with a first preset voltage range; and if that voltage is outside the first preset voltage range determining, based on the voltage at the variable capacitance input, an adjusted set of the trimming capacitances and storing in the memory information defining that adjusted set of the trimming capacitances (see col. 14, lines 39-67; fig. 2).

Regarding claim 18, Endo also show the step of determining performed only if the voltage at the variable capacitance input is inside a second preset voltage range (see col. 14, lines 39-67; col. 15, lines 1-29).

Regarding claim 19, Endo also show the information defining the adjusted set of the trimming capacitances stored so as to replace in the memory the said information defining a set of the trimming capacitances (see col. 14, lines 39-67; fig. 2).

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Conclusion

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nguyen Q. David whose telephone number is (703) 605-4254. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703)308-6739. The fax numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for all communications.

DN

David Q. Nguyen

Nguyen Vo
10/20/02

**NGUYENT.VO
PRIMARY EXAMINER**